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| 10/554,302 | 05/25/2006 | Roland Heckenthaler | 06721/Z07865Q | 4464 |

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THE PROCTER & GAMBLE COMPANY
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| EXAMINER |
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HINZE, LEO T

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/554,302 | Applicant(s) HECKENTHALER ET AL. | |
| | Examiner LEO T. HINZE | Art Unit 2854 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,7,8,10-14,17 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,7,8,10-14,17 and 19-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 4, 7, 8, 10-14, 17, 19, 20, and 21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 22 is rejected under 35 U.S.C. 102(b) as being anticipated by Wickwire Jr., et al., US 2,306,256 A (hereinafter Wickwire).

Wickwire teaches a plastic surface printing method, the method comprising: providing hot-stamping tool having a stamping surface (15, 17, Fig. 1); providing a counterpressure device (13, Fig. 1); preheating a surface of a plastic work piece ("plastic material of the nature hereinbelow set forth, is preheated," p. 1, col. 1, lines 39-40); preheating the stamping surface ("die holder 17 is heated by its heating element," p. 2, col. 1, lines 45-47); moving the heated stamping surface in a first direction ("heated die 15 has brought the stamping medium 19 into contact with the undulated face 10b of the plastic article," p. 2, col. 1, lines 51-55) and moving the counterpressure device in a second direction opposite the first direction ("platen accommodates itself to varying

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mean vertical dimensions of the article to be stamped," p. 2, col. 1, lines 3-6); pressing a carrier foil against the surface of the plastic work piece with the heated stamping surface and the counterpressure device such that a pigment layer is transferred from the carrier foil onto the plastic work piece (p. 2, col. 1, lines 55-69; Figs. 3 and 4).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 7, 8, 10-14 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wickwire in view of Horton, US 3,817,172 A (hereinafter Horton).

a. Regarding claims 1, 14, and 21:

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Wickwire teaches a plastic surface printing method comprising: providing a metallic hot-stamping tool with a stamping surface (15, 17, Fig. 1), preheating a surface of a plastic work piece to be printed ("plastic material of the nature hereinbelow set forth, is preheated," p. 1, col. 1, lines 39-40); and moving the stamping surface to press a carrier foil against a surface of the work piece such that a pigment layer is transferred from the carrier foil onto the work piece ("heated die 15 has brought the stamping medium 19 into contact with the undulated face 10b of the plastic article," p. 2, col. 1, lines 51-55; "platen accommodates itself to varying mean vertical dimensions of the article to be stamped," p. 2, col. 1, lines 3-6), wherein the work piece surface to be printed is preheated to a temperature between 80 °C and 120 °C ("range from 130 °F, upwardly, the upper limit being usually less than 250 °F; p. 2, col. 2, lines 11-12, which corresponds to a temperature range of 54 °C to 121 °C); and wherein the stamping surface is preheated to a temperature ("die holder 17 is heated by its heating element," p. 2, col. 1, lines 45-47); wherein preheating the work piece surface comprises: sensing a characteristic of the work piece surface, wherein the characteristic is selected from the group consisting of color, roughness, and material type (the operator will use her senses to determine the characteristics of the workpiece); and using data indicative of the sensed characteristic in an evaluation device that subsequently adjusts a heating power of the heating device based, at least in part, on the characteristic data (operator will use her senses to determine the characteristics of the workpiece, and subsequently adjust the heating power of the device to properly heat the workpiece to the desired temperature).

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Wickwire does not teach a plastic-coated outer stamping surface, and Wickwire is silent as to a recommended temperature of the stamping tool.

One having ordinary skill in the art would know to look to the prior art to help determine a suitable temperature to which to heat the stamping die.

Horton teaches a metallic hot-stamping tool with a plastic-coated outer stamping surface (2, 1; “the flexible resilient die portion is preferably formed of a high-temperature resistant silicone rubber material,” col. 1, ll. 45-47). The rubber surface allows the die to conform to the surface to be printed (col. 1, ll. 19-25). The die is heated to between 200 °C and 220 °C for stamping (col. 3, line 23).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Wickwire to include a plastic-coated outer stamping surface heated to between 200 °C and 220 °C as taught by Horton, because this would predictably allow the die to conform to the surface of the article to be printed.

b. Regarding claim 7, the combination of Wickwire and Horton teaches the method according to claim 1 as discussed in the rejection of claim 1 above. The combination of Wickwire and Horton also teaches wherein the preheated work piece surface comprises a surface capable of use as a plastic toothbrush (Wickwire: it appears that plastic article 10, Fig. 1, could be capable of use as a toothbrush).

c. Regarding claim 8, the combination of Wickwire and Horton teaches the method according to claim 7 as discussed in the rejection of claim 7 above. The combination of Wickwire and Horton also teaches wherein the work surface consists of a thermoplastic plastic (Wickwire: “vinyl chloride-acetate resins,” p. 1, col. 2, line 1).

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d. Regarding claim 10, the combination of Wickwire and Horton teaches the method according to claim 1 as discussed in the rejection of claim 1 above. The combination of Wickwire and Horton also teaches wherein the hot-stamping tool is coated with a silicon layer (Horton: “the flexible resilient die portion is preferably formed of a high-temperature resistant silicone rubber material,” col. 1, ll. 45-47).

e. Regarding claims 11, 12, and 19, the combination of Wickwire and Horton teaches the method according to claims 10 and 14 as discussed in the rejection of claims 10 and 14 above. The combination of Wickwire and Horton also teaches wherein the silicone layer has a thickness between 2 and 3 mm (Horton: “the die is 0.75 to 3 mm thick,” col. 4, l. 25).

f. Regarding claims 13 and 20, the combination of Wickwire and Horton teaches the method according to claims 1 and 14 as discussed in the rejection of claims 1 and 14 above. The combination of Wickwire and Horton also teaches wherein the stamping surface is preheated to a temperature between 200 °C and 220 °C (Horton: col. 3, line 23).

7. Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wickwire in view of Horton as applied to claims 1 and 14 above, and further in view of Colledge, US 3,791,290 A (hereinafter Colledge).

a. Regarding claims 4 and 17:

The combination of Wickwire and Horton teaches the method according to claims 1 and 14 as discussed in the rejection of claims 1 and 14 above.

The combination of Wickwire and Horton does not teach wherein preheating the work piece surface is heated by means of an infrared lamp.

Colledge teaches a heating means for a work piece that is either an electric resistance coil or an infra-red lamp (col. 1, lines 33-34).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to further modify Wickwire to supplement the electric heater with an infrared heater, because Colledge teaches that these are known equivalents, and one having ordinary skill in the art may find more flexibility in using an IR heater that does not need to touch the work piece to heat it.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo T. Hinze whose telephone number is 571.272.2864. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571.272.2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Leo T. Hinze
Patent Examiner
AU 2854
11 August 2010

/Judy Nguyen/
Supervisory Patent Examiner, Art Unit 2854